

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

What is claimed is:

1. (Currently Amended) A biosensor for determination of an analyte concentration in a test sample comprising:
a mixture for electrochemical reaction with an analyte[[:]], said mixture including an enzyme,
a mediator, and
an oxidizable species as an internal reference.
2. (Currently Amended) [[A]] The biosensor ~~as recited in~~ of claim 1 wherein said internal reference is ~~defined as the a~~ reduced form of a reversible redox couple that has an equal or higher redox potential than that of said mediator.
3. (Currently Amended) [[A]] The biosensor ~~as recited in~~ of claim 1 wherein said mediator comprises 3-phenylimino-3H-phenothiazine.
4. (Currently Amended) [[A]] The biosensor ~~as recited in~~ of claim 3 wherein said internal reference comprises ferrocyanide.
5. (Currently Amended) [[A]] The biosensor ~~as recited in~~ of claim 4 wherein said ferrocyanide ~~defining said internal reference~~ and said mediator are oxidized at a first voltage potential and only said mediator is oxidized at a second voltage potential[[:]], said second voltage potential being less than said first voltage potential.
6. (Currently Amended) [[A]] The biosensor ~~as recited in~~ of claim 5 wherein said first voltage potential is about 400 mV and said second voltage potential is about 100 mV.
7. (Currently Amended) [[A]] The biosensor ~~as recited in~~ of claim 1 wherein said mediator comprises ferricyanide.

8. (Currently Amended) [[A]] The biosensor ~~as recited in~~ of claim 7 wherein said internal reference comprises ferrocyanide.

9. (Currently Amended) [[A]] The biosensor ~~as recited in~~ of claim 1 wherein said mediator comprises ruthenium hexaamine.

10. (Currently Amended) [[A]] The biosensor ~~as recited in~~ of claim 9 wherein said internal reference comprises ferrocyanide.

11. (Currently Amended) [[A]] The biosensor ~~as recited in~~ of claim 10 wherein said enzyme comprises glucose oxidase.

12. (Currently Amended) A method of use of a biosensor including a mixture of an enzyme, a mediator, and an oxidizable species as an internal reference, said method comprising the steps acts of:

applying a first voltage potential in a first period; and

providing a set delay period;

applying a second voltage potential in a final period following said delay period[;], and wherein said first voltage potential and said second voltage potential are selectively provided for oxidizing only said mediator or both said mediator and said internal reference.

13. (Currently Amended) [[A]] The method ~~as recited in~~ of claim 12 wherein the [[step]] act of applying [[a]] said first voltage potential in [[a]] said first period includes the [[step]] act of applying a selected high first voltage potential in the first period for oxidizing said mediator and said internal reference.

14. (Currently Amended) [[A]] The method ~~as recited in~~ of claim 12 wherein the [[step]] act of applying [[a]] said first voltage potential in [[a]] said first period includes the [[step]] act of applying a selected low first voltage potential in the first period for oxidizing only said mediator.

15. (Currently Amended) [[A]] The method as recited in of claim 12 wherein the [[step]] act of applying [[a]] said second voltage potential in [[a]] said final period following said delay period includes the [[step]] act of applying a selected second voltage potential for oxidizing said mediator and said internal reference.

16. (Currently Amended) [[A]] The method as recited in of claim 12 wherein the [[step]] act of applying [[a]] said second voltage potential in [[a]] said final period following said delay period includes the [[step]] act of applying a selected second voltage potential for oxidizing only said mediator.

17. (Currently Amended) [[A]] The method as recited in of claim 12 wherein the ~~steps~~ acts of applying said first voltage potential and applying said second voltage potential includes the ~~steps~~ acts of applying a selected voltage potential in a range between 100 mV and 400 mV.

18. (Currently Amended) [[A]] The method as recited in of claim 12 wherein the ~~steps~~ acts of applying said first voltage potential and applying said second voltage potential includes the ~~steps~~ acts of applying a selected first voltage potential in the first period for oxidizing both said mediator and said internal reference; and applying a selected second voltage potential for oxidizing only said mediator.

19. (Currently Amended) [[A]] The method as recited in of claim 12 wherein the biosensor includes a mediator comprising one of 3-phenylimino-3H-phenothiazine and ruthenium hexaamine; and wherein the internal reference comprises ferrocyanide; and wherein the ~~steps~~ acts of applying said first voltage potential and applying said second voltage potential includes the ~~steps~~ acts of applying a selected first and second voltage potential for oxidizing only said mediator.

20. (Currently Amended) [[A]] The method as recited in of claim 12 wherein the ~~steps~~ acts of applying said first voltage potential and applying said second voltage potential includes the ~~steps~~ acts of applying a selected first and second voltage potential for oxidizing both said mediator and said internal reference; wherein said internal reference effectively anchoring a calibration intercept within a narrow range and said internal reference effectively maintaining a calibration slope for the biosensor.